

ABSTRACT

This invention includes a universal base unit having a plurality of cables, each corresponding to a unique electronic host device. The cable includes a capacitor having a value corresponding to a particular electronic host device. The capacitor is coupled in series with a resistor to ground in the universal base unit. The cable further includes a unique mating connector for coupling to the electronic host device. The universal base unit identifies the cable by actuating a step function across the capacitor-resistor network, causing an exponentially decaying waveform. A microprocessor in the host device then measures the width of the waveform to determine the identity of the cable or host device. The system allows a user to carry a single power supply or universal base unit with multiple cables as opposed to having to transport a different accessory for each electronic device.